

YOUR MOST VALUABLE RESOURCE - WATER

OFFICE OF  
**FRESNO**  
**IRRIGATION DISTRICT**

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May 17, 2012

Mr. Tony Valdez  
California High Speed Rail Authority  
770 "L" Street, Suite 800  
Sacramento, CA 95814

RE: Review of High Speed Rail 15% Plans for Segment 1B (Stanislaus to Santa Clara streets) and 15% Plans for Segment 1C (Santa Clara Street to South of American Avenue)

FID Facilities: Braly No. 14, Fresno Colony No. 24, North Central No. 26, Central No. 23, Viau No. 25, and Storey No. 237

Dear Mr. Valdez:

The Fresno Irrigation District (FID) has reviewed the California High Speed Rail Authority (CHSRA) 15% plans for Segment 1B and 1C that were provided to FID on April 20, 2012. There are no FID facilities within Segment 1B. Please note that these comments are provided in addition to those previously sent to the Authority by letter from FID on October 13, 2011 in response to the Draft EIR/EIS. Reference is made to the items identified in that letter, several of which still need to be incorporated into the plans. Sorted by FID facility, the following are FID's project comments and requirements for Segment 1C:

Braly No. 14

- The Braly No. 14 alignment follows the California Ave. alignment through the proposed HSR alignment. This pipe section of 30" non-reinforced concrete pipe will need to be replaced with ASTM C-361 Rubber Gasketed Reinforced Concrete Pipe (RGRCP). The new pipe shall be enclosed in a casing pipe that extends across the full width of the HSR right of way.
- The casing should extend across CHSRA's full right of way width. More detail is needed to understand the location of construction/receiving pits and the extent of construction to determine the work within the BNSF right of way. It is anticipated that the new casing and pipeline will need to extend across the BNSF right of



way because a new structure to connect to the existing pipe will be needed and will need to be located outside the railroad right of way. It is neither desirable nor accessible having these structures placed within the railroad right of way.

- A 60-inch diameter access standpipe with galvanized steel bar grating metal cover shall be constructed on both sides of the right in conformance with FID requirements for urban setting.
- A 30-foot wide exclusive pipeline easement will be required for the new pipeline.
- Provide a plan/profile along the centerline of FID's facility, and includes location of other utility crossings in plan and profile views. The plan and profile view should show the entire length of the proposed FID facility extending across the entire HSR and City rights of way.
- Plan sheets reviewed include CB1662. Please identify any other sheets that cover the area of this FID facility.
- For further clarification, attached are plan sheet markups on key sheets, and a copy of available record plans of the Braly No. 14 near the CHSR crossing locations.

#### Fresno Colony No. 24

- Provide a plan/profile along the centerline of FID's facility, and include locations of other utility crossings in plan and profile views. The plan and profile view should show the entire length of the proposed FID facility extending across the entire HSR right of way. Provide further detail for the canal diversion proposed on sheet SV2201 showing existing facilities and the proposed connection points.
- The alignment of FID's facility should be relocated outside of HSR right of way and placed within a 40-foot wide exclusive pipeline easement
- A suggested alignment is shown in the attached red-lined plan sheet, assuming a maximum 30-degree angled crossing is preferred. Parallel 48-inch diameter and 42-inch diameter parallel pipelines shall be constructed. Consideration should be given to short segment of open channel that could remain, as it may be less expensive to construct a pipeline and connect to the existing pipelines than constructing a new outlet structure.
- The new pipelines shall extend past the HSR ROW on both sides to allow for a turnaround area with adequate vertical and horizontal clearance for FID equipment.

Reference is made to the October 13, 2011 letter to the CHSRA for addressing pilings and footings of elevated sections within the HSR ROW.

- Pilings and footings should be located outside of FID's easement. Widening the canal to clear columns is problematic, especially for trash and maintenance. An alternative is to reroute and pipe FID's facility such that the proposed pipeline crosses CHSRA's right-of-way once and avoid potential conflict issues from crossing the HSR multiple times. Please refer to Item 7.a.iii from the FID's letter dated 10-13-2011 regarding concern for existing non-reinforced concrete pipe near the HSR construction.
- Label the name of the FID facility to all appropriate plan sheets.



- Plan sheets reviewed include CB1666, CB1667, SV2201, SV2202, SV2203. Please identify any other sheets that cover the area of this FID facility.
- For further clarification, attached are plan sheet markups on key sheets, and a copy of available record plans of existing FID facilities at the CHSR crossing locations.

#### North Central No. 26

- It appears that the columns and footings clear the FID facility completely and the grade separation above the existing canal will allow for the open canal to remain, and that there will be no fencing limiting access to the canal crossing the HSR ROW. Please provide details if any part of a column or footing encroaches into FID's right of way, and show the existing canal right of way on the appropriate plan sheets. A clearance envelope for vehicular access along the canal bank shall be indicated on the plans for the North Central if the intent is to not box culvert the canal. If there is not adequate vertical clearance, an adequate turnaround area shall be provided. The existing open canal will need to remain in full operation during any construction activities occurring within FID's irrigation season. Any construction work within the existing canal right of way will require a permit from FID.
- Label the name of the facility to all appropriate plan sheets.
- Plan sheets reviewed include CB1668, SV2206. Please identify any other sheets that cover the area of this FID facility.
- For further clarification, attached are plan sheet markups on key sheets.

#### Central No. 23 (HST ROW and Cedar Avenue)

- Provide a plan and profile sheet along the centerline of FID's facility, and include locations of other utility crossings in plan and profile views. The plan and profile view should show the entire length of the proposed FID facility extending across the entire HSR right of way.
- Provide details at both culvert crossings (Cedar Ave and HST ROW). Preference is given to clear span bridges if at all possible. If not, hydraulic calculations showing headloss, hydraulic/energy gradelines will be required, along with access requirements mentioned in the letter to the CHSRA on October 13, 2011.
- Provide details on the retaining wall along Central Ave showing impacts to areas within FID's easement. FID's canal banks within the project area shall be maintained and canal access for FID maintenance and operation vehicles shall be provided for by CHSRA during construction.
- Label the name of the Central Canal facility to all appropriate plan sheets along with other FID facility shown adjacent to or the CHSR alignment (i.e. FID's American Colony No. 27 facility).
- Structural details and calculations of the proposed culvert will be required to be part of the final plans before approval is given and a FID construction permit issued.
- Plan sheets reviewed include CB1669, CB1670, CT1025. Please identify any other sheets that cover the area of this FID facility.
- For further clarification, attached are plan sheet markups on key sheets.



#### Viau No. 25

- Provide a plan/profile along the centerline of FID's facility, and include locations of other utility crossings in plan and profile views. The plan and profile views should show the entire length of the proposed FID facility extending across the entire right of way.
- A new ASTM C-361 RGRCP culvert inside of a casing shall be constructed, and shall include construction of an outfall structure consistent with FID standards. It is not clear whether the section crossing the Viau is a raised embankment or a raised structure (viaduct). If the HST ROW has a raised embankment at this location, the pipeline shall meet the ASTM requirement (C or D wall) for the appropriate depth of cover over the pipe.
- The casing shall extend across the full CHSRA's right of way width. More detail is needed to understand the location of construction/receiving pits and the extent of construction to determine the work within the BNSF right of way. It is anticipated that the new casing and pipeline will need to extend across the BNSF right of way because a new structure to connect to the existing pipe will be needed and that structure needs to be located outside the railroad right of way. It is neither desirable nor accessible to have these structures placed within the railroad right of way. A 30-foot wide exclusive pipeline easement will be required for the new pipeline.
- Label the name of the facility to all appropriate plan sheets.
- Plan sheets reviewed include CB1670. Please identify any other sheets that cover the area of this FID facility.
- For further clarification, attached are plan sheet markups on key sheets.

#### Storey No. 237

- Provide a plan/profile along the centerline of FID's facility, and include locations of other utility crossings in plan and profile views.
- The existing pipeline shall be removed and replaced with new ASTM C-361 RGRCP. The existing pipe within the CHSRA's right of way is not suitable to remain in-place with heavy equipment operating over it. The additional loading and vibration that the existing pipeline will experience will compromise the pipe. Protection of pipe is not an acceptable mitigation method. A 60-inch diameter access standpipe with galvanized steel bar grating metal cover shall be constructed on both sides of the right in conformance with FID requirements for urban setting.
- The new casing shall extend across the full right of way width. More detail is needed to understand the location of construction/receiving pits and the extent of construction to determine the work within the BNSF right of way. It is anticipated that the casing and new pipe will need to extend across the BNSF right of way as well, as a structure to connect to the existing pipe will be needed and is not desirable or accessible within railroad right of way.
- A 30-foot wide easement will be required for the new pipeline.
- Label the facility name and add the facility to all appropriate plan sheets. The Storey No. 237 is currently not reflected on any plan sheets.

- Plan sheets reviewed include CB1671, CT1028. Please identify any other sheets that cover the area of this FID facility.
- For further clarification, attached are plan sheet markups on key sheets, and a copy of available record plans of the Storey No. 237 at the CHSR crossing locations.

Easement and right of way legal descriptions and associated exhibits shall be prepared and submitted to FID for approval prior to any easement acquisition. Upon acceptance of the description by FID, a grant of easement shall be executed consistent with FID's standard Grant of Easement template; a copy is attached for reference purposes.

If you have any further questions, please feel free to contact Felix Vaquilar at (559) 233-7161 extension 7403 or [fvaquilar@fresnoirrigation.com](mailto:fvaquilar@fresnoirrigation.com)

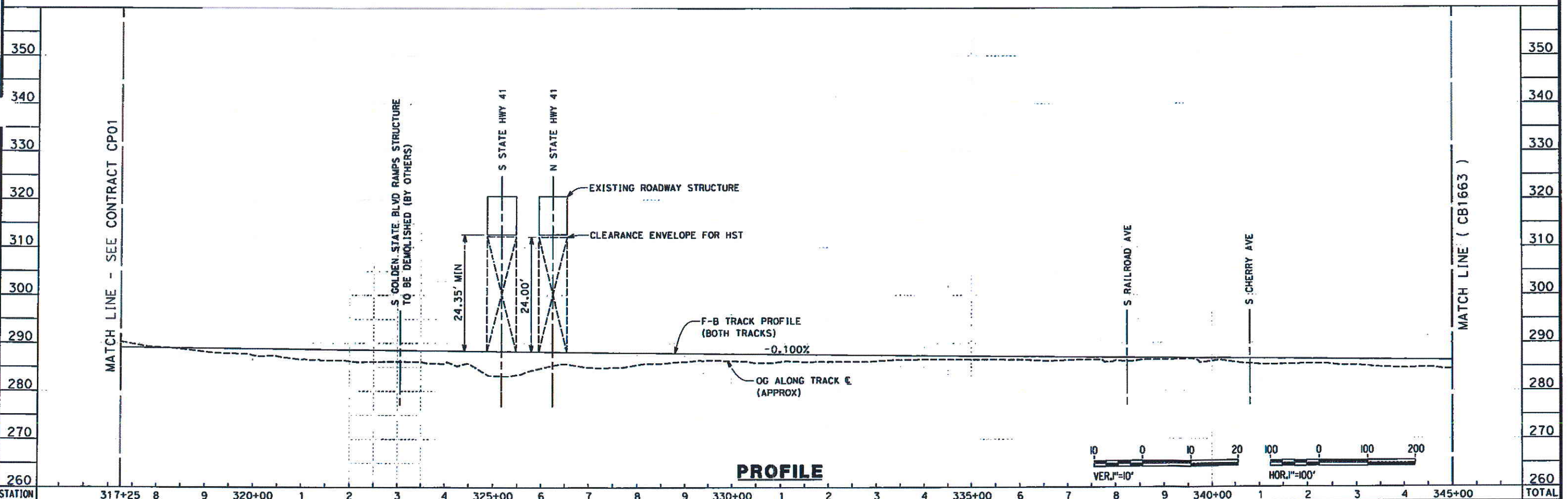
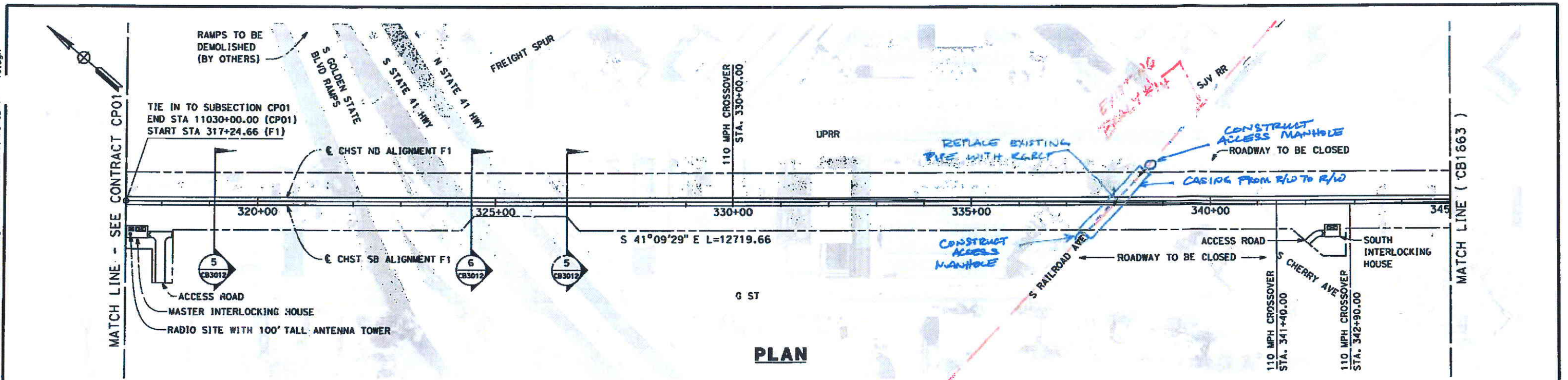
Sincerely,



William R. Stretch  
Chief Engineer

Enclosures





DESIGNED BY K. SEYMOUR
DRAWN BY P. TONKIN
CHECKED BY D. HUNT
IN CHARGE R. COFFIN
DATE 3/01/12

**RECORD SET 15%  
DESIGN SUBMISSION**

**NOT FOR  
CONSTRUCTION**



**CALIFORNIA**  
HIGH-SPEED RAIL AUTHORITY

**CALIFORNIA HIGH-SPEED TRAIN PROJECT  
FRESNO TO BAKERSFIELD**  
FRESNO SUBSECTION  
ALIGNMENT F1  
STA. 317+25 TO 373+00  
PLAN AND PROFILE

CONTRACT NO.	HSR 06-0003
DRAWING NO.	CB1662
SCALE	AS SHOWN
SHEET NO.	7 OF 23

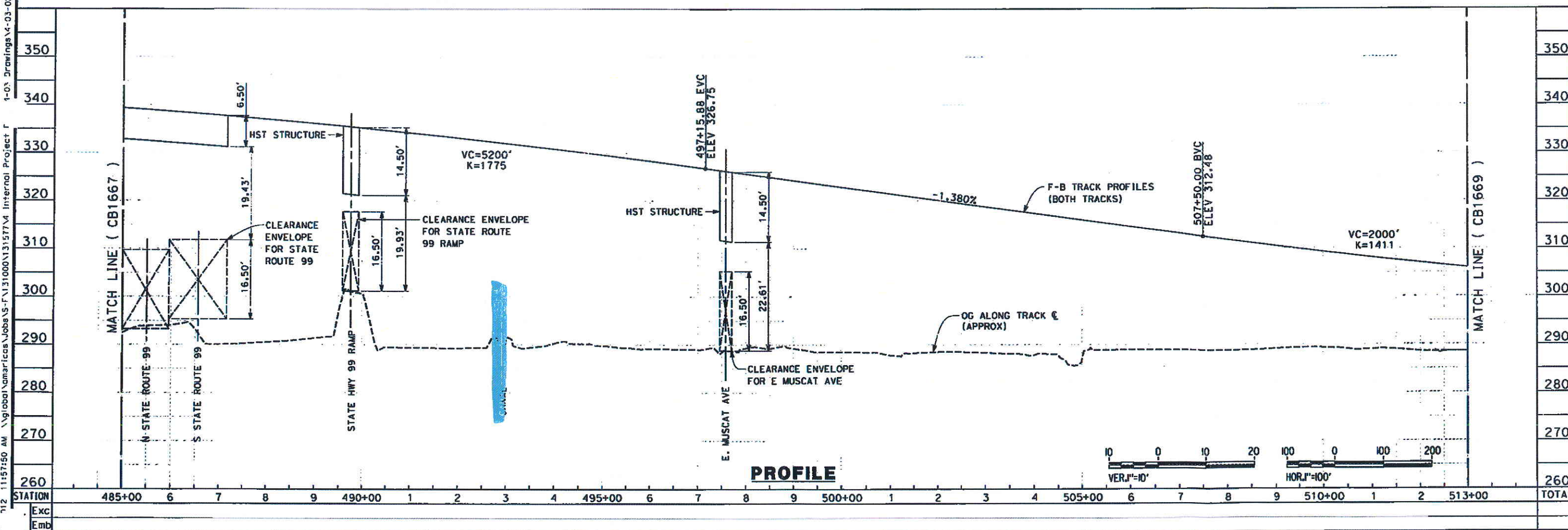
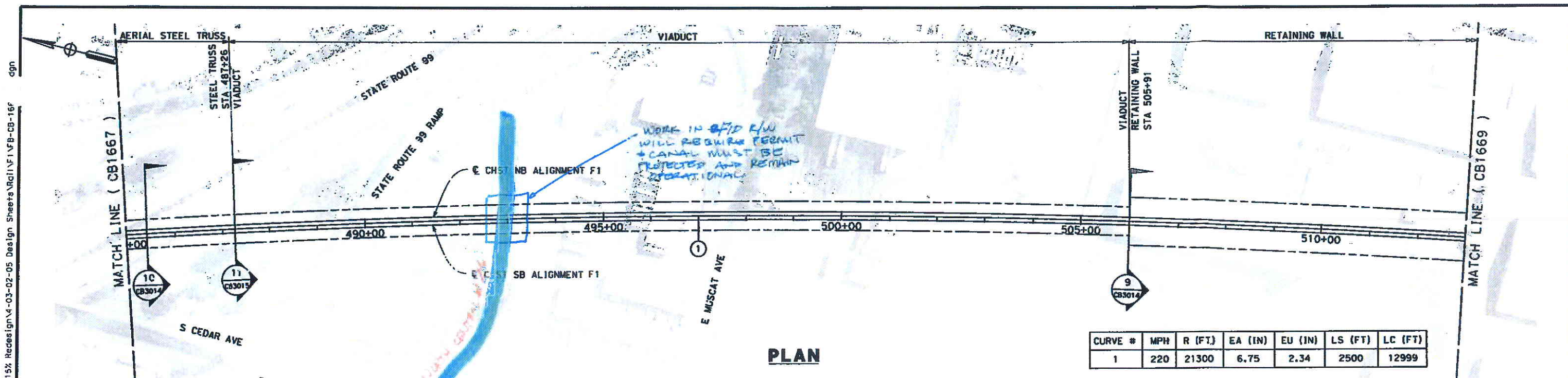












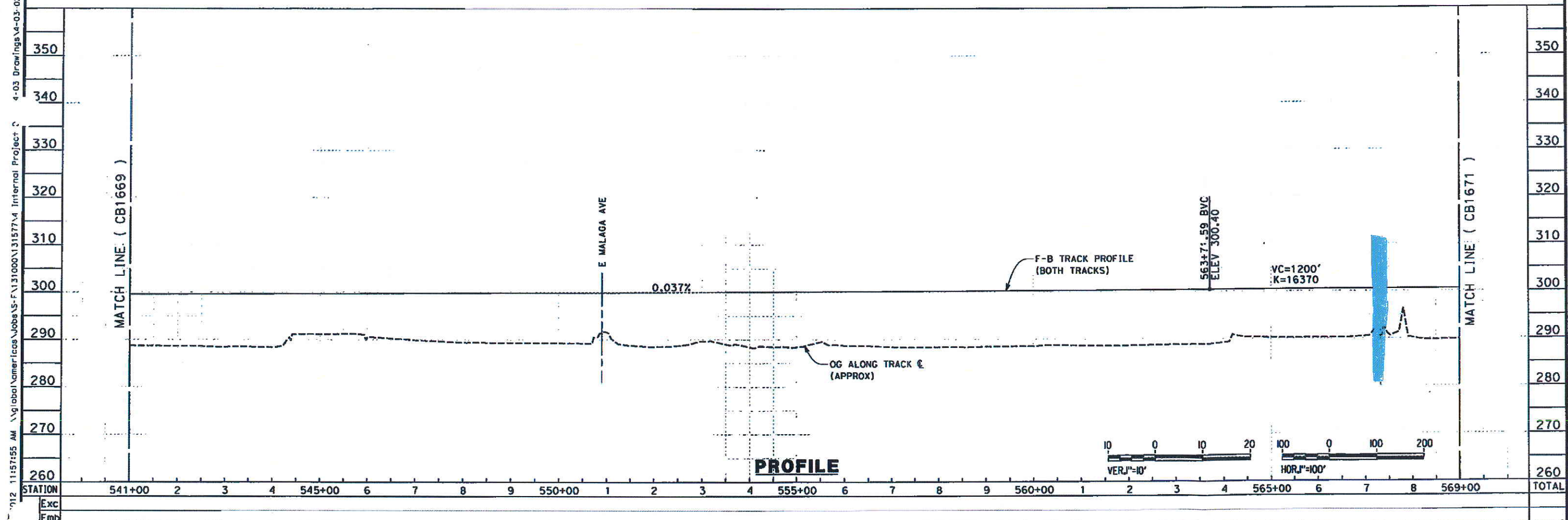
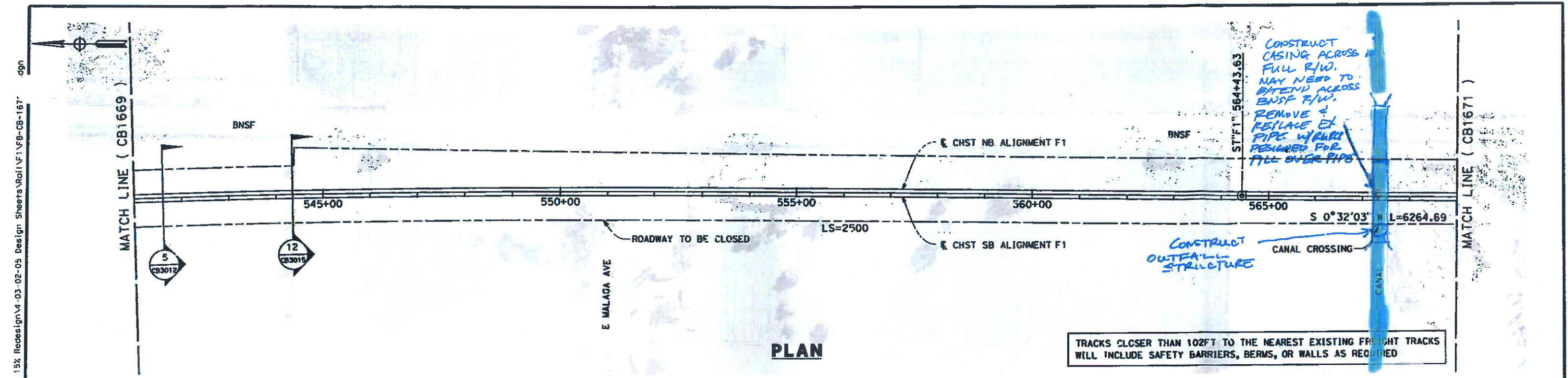


					DESIGNED BY K. SEYMOUR			<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT FRESNO TO BAKERSFIELD</b> FRESNO SUBSECTION ALIGNMENT F1 STA. 485+00 TO 513+00 PLAN AND PROFILE	CONTRACT NO. HSR 06-0003
					DRAWN BY P. TONKIN				DRAWING NO. CB1668
					CHECKED BY D. HUNT				SCALE AS SHOWN
					IN CHARGE R. COFFIN				SHEET NO. 13 OF 23
REV	DATE	BY	CHK	APP	DESCRIPTION	DATE 02/15/12			



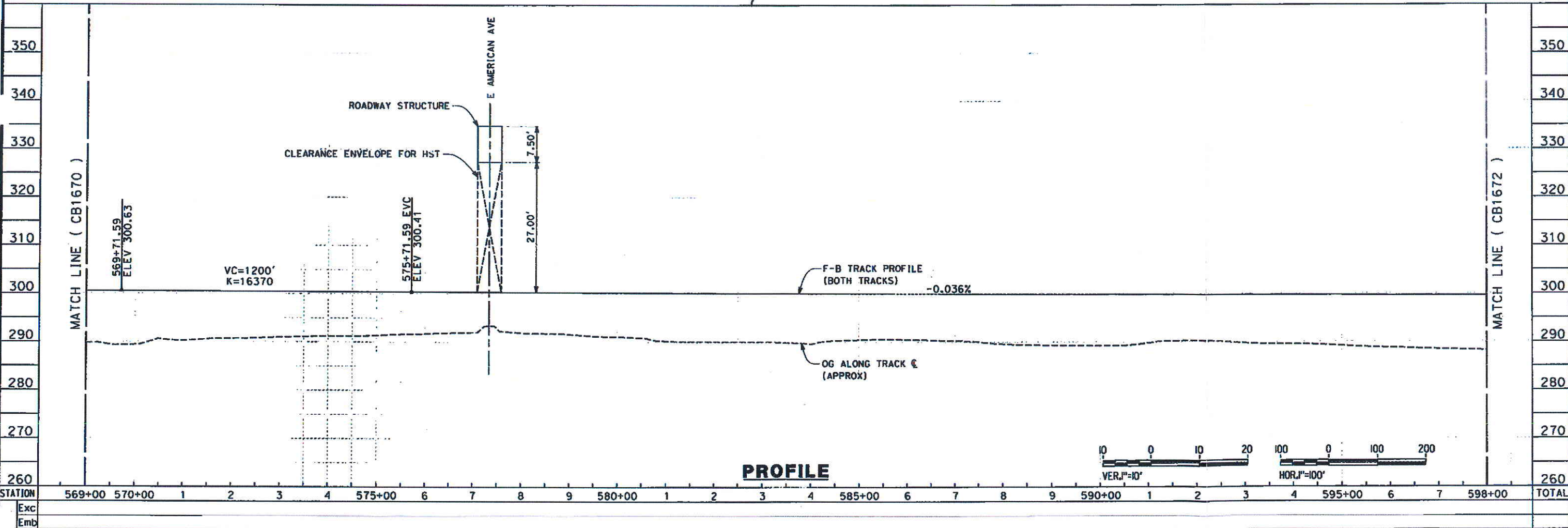







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					REV	DATE	BY	CHK	APP	DESCRIPTION																
Paul Tonkin		URS   HMM   ARUP		CALIFORNIA HIGH-SPEED RAIL AUTHORITY																						





					DESIGNED BY K. SEYMOUR	RECORD SET 15% DESIGN SUBMISSION  NOT FOR CONSTRUCTION			<b>CALIFORNIA HIGH-SPEED TRAIN PROJECT          FRESNO TO BAKERSFIELD</b> FRESNO SUBSECTION ALIGNMENT F1 STA. 569+00 TO 598+00 PLAN AND PROFILE	CONTRACT NO. HSR 06-0003
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					CHECKED BY D. HUNT					SCALE AS SHOWN
					IN CHARGE R. COFFIN					SHEET NO. 16 OF 23
					DATE 3/01/12					
REV	DATE	BY	CHK	APP	DESCRIPTION					